

What is claimed is:

1. A method of manufacturing an EEPROM device, comprising:
 - forming a screen oxide film on a semiconductor substrate;
 - forming a first ion implantation mask defining a gate insulating film forming region on the screen oxide film;
 - performing a first ion implantation on the semiconductor substrate and the first ion implantation mask;
 - performing a first annealing of the semiconductor substrate;
 - removing the screen oxide film and the first ion implantation mask;
 - forming a gate oxide film on the semiconductor substrate;
 - forming a second ion implantation mask defining a gate insulating film forming region on the gate oxide film;
 - performing a second ion implantation on the semiconductor substrate and the second ion implantation mask;
 - performing a second annealing for the semiconductor substrate;
 - removing the second ion implantation mask; and
 - forming a tunnel oxide film on the gate oxide film.
2. The method of claim 1, wherein the gate oxide film has a thickness of 50 to 300Å
3. The method of claim 1, wherein the tunnel oxide film has a thickness of 50 to 100Å

4. The method of claim 1, wherein the first annealing is performed at a temperature of 1000 to 1050°C for 10 to 20 seconds.
5. The method of claim 1, wherein the second annealing is performed at a temperature of 1050 to 1150°C for 10 to 20 seconds.
6. The method of claim 1, wherein the first ion implantation is performed by implanting ^{31}P ions with an ion implantation energy of 50 to 70KeV and dose of 2×10^{13} to 2×10^{14} ion/cm².
7. The method of claim 1, wherein the second ion implantation is performed by implanting ^{75}As ions with an ion implantation energy of 60 to 85KeV and dose of 1×10^{14} to 1×10^{15} ion/cm².
8. The method of claim 1, wherein the screen oxide film has a thickness of 40 to 60Å